

CLAIMS

I claim:

1. A power management device for use in a power distribution network of a vehicle comprising:
an input; and
a logic unit coupled to the input, wherein when the logic unit determines a presence of an electrical energy at the input the logic unit places the power management device in one of a standby mode and an active mode.
2. The power management device of claim 1 wherein the logic unit places the power management unit in the standby mode when the logic unit determines the electrical energy is a secondary power source.
3. The power management device of claim 1 wherein the logic unit places the power management unit in the active mode when the logic unit determines the electrical energy is a primary power source.
4. The power management device of claim 3 wherein when the power management device is in the active mode, the power management device routes the primary power to an output port, the output port for connection to an other power management device in the power distribution network.
5. The power management device of claim 1 wherein the power management device operates at a lower voltage when in the standby mode than when in the active mode.
6. The power management device of claim 1 further comprising:
a circuit, coupled between the input and the logic unit, responsive to the electrical energy at the first input, the circuit for supplying power to the logic unit.
7. The power management device of claim 1 further comprising a communication unit for receiving an instruction related to an operational

mode wherein the power management device is responsive to said instruction.

8. The power management device of claim 7 wherein the operational mode comprises one of the active mode, the standby mode, a fault detection mode, a fault management mode, a load sequencing mode and a load shed mode.

9. The power management device of claim 7 wherein the communication unit is further operable to send a status of the power management device.

10. A method for sequentially starting a plurality of nodes in a power distribution network comprising:
applying a power to a first node of the plurality of nodes;
determining that the power is a primary power source; and
when the power is a primary power source,
routing the primary power to a second node of the plurality of nodes.

11. The method of claim 10 further comprising:
repeating applying the power to each of the plurality of nodes in the power distribution network.

12. The method of claim 10 further comprising:
determining that the power is a secondary power source; and
waiting in a standby mode when the power is the secondary power source.

13. The method of claim 10 further comprising:
communicating with at least one of the first and second nodes to set an operating state in the at least one of the first and second nodes.

14. The method of claim 10 further comprising:
communicating with at least one of the first and second nodes to monitor a condition of the at least one of the first and second nodes.

15. The method of claim 10 further comprising:
powering in a sequential fashion a plurality of loads coupled to the plurality of nodes to reduce an instantaneous change in power supplied by the power distribution network.
16. The method of claim 10 wherein the determining that the power is the primary power further comprises communicating with a power source to determine that the power source is a supplier of the primary power.
17. A vehicle arranged and constructed for using a power management distribution network comprising:
a plurality of power distribution nodes;
a conductive infrastructure connecting the power distribution nodes; and
a plurality of power sources coupled to at least one of the plurality of power distribution nodes, wherein the at least one of the plurality of power distribution nodes determines that a one of the plurality of power sources is supplying a primary power source, and routes the primary power source to another of the plurality of power distribution nodes.
18. The vehicle of claim 16 wherein a one of the plurality of power distribution nodes waits in a standby mode when connected to a secondary power source.
19. The vehicle of claim 16 wherein a one of the plurality of power sources is operable to communicate its type to a one of the plurality of power distribution nodes.
20. The vehicle of claim 16 further comprising:
a controller operable to communicate with an each of the plurality of power distribution nodes, the controller for setting an operational mode in the each of the plurality of power distribution nodes.

21. The vehicle of claim 19 wherein the operational mode comprises one of an active mode, a standby mode, a fault detection mode, a fault management mode, a load sequencing mode and a load shed mode.